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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,371	03/04/2002	Dawei Huang	HUANG 2-1 (58655)	5175
46290	7590	01/18/2005	EXAMINER	
WILLIAMS, MORGAN & AMERSON/LUCENT			TORRES, JOSEPH D	
10333 RICHMOND, SUITE 1100			ART UNIT	
HOUSTON, TX 77042			PAPER NUMBER	
			2133	

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,371

Applicant(s)

HUANG ET AL.

Examiner

Joseph D. Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 11/15/2004. These drawings are accepted.

Response to Arguments

2. Applicant's arguments filed 11/15/2004 have been fully considered but they are not persuasive.

The Applicant contends, "In the Office Action, claims 3, 12, and 19 were rejected under 35 U.S.C. j 1 12, first paragraph, as allegedly failing to comply with the enablement requirement in that the phrase "the inserted zeroes comprise an equivalent time varying convolution code" is not described in the specification. Applicants respectfully disagree and note that the Patent Application describes a 'zero code' comprising an equivalent time varying convolutional code at least in lines 1-5 on page 13 of the specification".

The Examiner disagrees and asserts that nowhere in lines 1-5 on page 13 of the specification does the specification say "a 'zero code' comprising an equivalent time varying convolutional code", but instead says "matrix, the 'zero code' of the present invention is similar to a time varying code".

The Applicant contends, "However, Kato does not describe or suggest periodically inserting known symbols into a digital input data sequence". In addition the Applicant

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acknowledges that Kato teaches that the plurality of bits “may be inserted concentratedly or distributively. See Kato, col. 4, 11. 7- 16 and Figures 5A-B”. Periodic insertion within a code word is a form of distributive insertion and is encompassed by distributive insertion. Furthermore; the teachings in Kato require no structural changes in order to accommodate a specific embodiment of periodic insertion within a codeword for which the invention in Kato is designed and the invention in Kato is inherently capable of periodic insertion within a codeword (See, e.g., *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997) and *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971)). The Examiner would like to point out that across a message comprising codewords, e.g., the 14-bit codewords in Figures 5A-B, extra bits are inserted in the same location for each codeword; hence are periodically inserted across codewords.

The Examiner disagrees with the applicant and maintains all rejections of claims 1-22. All amendments and arguments by the applicant have been considered. It is the Examiner's conclusion that claims 1-22 are not patentably distinct or non-obvious over the prior art of record in view of the references, Kato; Osamu et al. (US 5436918 A, hereafter referred to as Kato) and Wicker (Stephen B. Wicker, *Error Control Systems for Digital Communication and Storage*, Prentice-Hall, Pages 264-273) as applied in the last office action, filed 08/12/2004. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato; Osamu et al. (US 5436918 A, hereafter referred to as Kato).

See the Non-Final Action filed 08/12/2004 for detailed action of prior rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato; Osamu et al. (US 5436918 A, hereafter referred to as Kato) in view of Wicker

(Stephen B. Wicker, Error Control Systems for Digital Communication and Storage, Prentice-Hall, Pages 264-273).

See the Non-Final Action filed 08/12/2004 for detailed action of prior rejections.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph D. Torres, PhD
Primary Examiner
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